Description

The SmartAudio 20 (SSA-3220) provides 32 x 20 distributed audio, all in one compact 2U rack-mountable design. It is the ideal analog and digital audio matrix switcher effortlessly controlled by an iPhone®, iPod touch®, iPad®, or iPad mini® running Savant's TrueControl™ app.

The SSA-3220 delivers a complete Savant SmartSystem™ when paired with an external host, or can be integrated with a third-party control solution.

32 x 20 Audio Matrix Switcher
SSA-3220 includes 16 analog and 16 digital selectable inputs, and 20 outputs (16 analog plus four S/PDIF) for passing analog line-level audio to an external amplifier of your choice (see AMP-2000 or AMP-8125).

In addition, the SSA-3220 delivers pass-through of the most popular surround sound formats by using both the digital inputs and outputs available on the SSA-3220.

Automatic Audio Conversion
Analog audio is automatically converted to digital audio and digital audio to analog. Furthermore, both analog and digital audio is available simultaneously on each output for added flexibility

The broad range of selectable analog and digital inputs makes it simple to manage all your favorite audio sources.

Audio Control Parameters
The SSA-3220 includes control of volume, balance, and a seven-band equalizer (EQ) per channel of analog and digital audio.

Common Applications
The SSA-3220 readily distributes music to every room playing the same song (party mode) or different songs, simultaneously and independently. Sixteen coax digital inputs and 12 optical inputs are available with auto conversion to digital (coax) and analog audio, for easy integration with popular cable set-top receivers.

Feature Summary

- Advanced 32 x 20 distributed audio solution for residential and commercial markets
- Provides 16 analog and 16 digital selectable inputs with auto conversion to coax, and analog audio, for easy integration with cable boxes
- Audio Format Conversion — Analog audio is automatically converted to digital audio and vice versa.
- Provides 16 analog audio outputs plus four S/PDIF (digital coax) outputs. Both analog and digital audio are available simultaneously on these outputs.
- Provides pass-through of surround sound formats (Dolby® and DTS®) when using both the digital inputs and outputs available on the SSA-3220.
- Independent control of volume, balance, and a seven-band graphic EQ per channel.
- Master volume to control all zones simultaneously including full mute with 0.5 dB step resolution.
- Supports sample rates up to 96 kHz
- Complete control of all your audio zones when paired with a Savant user interface

When paired with the Savant Media Server (SMS-002A or SMS-005A), the SSA-3220 supports local music libraries and the most popular streaming services including Pandora, Spotify, Rhapsody, SiriusXM, Last.fm, and TuneIn radio.

Front View of SSA-3220 (above)

Rear View of SSA-3220

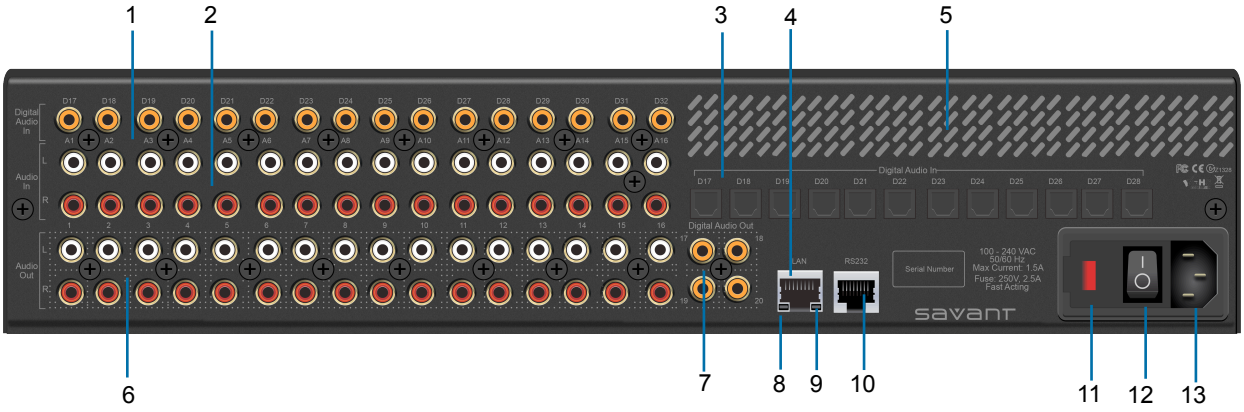
45 Perseverance Way, Hyannis, MA 02601 ▼ P: 508-683-2500 ▼ F: 508-683-2600 ▼ www.SavantSystems.com
Savant Confidential and Proprietary

Specifications

Environmental	
Temperature	32° to 104° F (0° to 40° C)
Humidity	10% to 80% Relative Humidity (non-condensing)
Cooling	5 cubic feet per minute (CFM) recommended.
Maximum BTUs	105 BTUs per hour
Dimensions and Weight	
Height	3.46 in/8.79 cm
Width	17.3 in/43.94 cm
Depth	12.94 in/32.88 cm
Weight	14.25 lb/6.5 kg
Rack Space	2U
Power	
Input Power	100-240V AC, 50/60 Hz, 1.5 Amp; Uses standard 3 prong IEC C14 connector
Nominal Power	25 watt
Maximum Power	40 watt
Operational Parameters	
Total Harmonic Distortion (THD)	<0.004 %, 20 Hz - 20 KHz
Dynamic Range	100 dB, A-weighted
Signal-to-Noise Ratio (SNR)	>100 dB, A-weighted
Frequency Response	20 Hz - 20 kHz +0 dB +/- 1.5 dB
Input Impedance	12 K Ohms
Volume Control per Channel	+ 58 dB to -100dB in 0.5 dB steps
Mute	Individual channel and master soft/hard mute
Balance Control	Individual balance control, left and right channel
Seven-Band Equalizer (EQ)	On a per channel basis; +/- 16dB, 0.5 dB steps
Supported Sample Rates	44.1 kHz | 48 kHz | 96 kHz —all at 16-bit or 24-bit resolution
Compliance	
Safety and Emissions	FCC Part 15 | S Mark | CE Mark | C-Tick
RoHS	Compliant
Front LEDs	
The LEDs on the front panel are used for diagnostic purposes. A description of the LEDs is available in the SSA-3220 Quick Reference Guide.	
Rear Panel	
See *Rear Panel Capabilities and Connectors on the next page.*	
Supported Audio Output Formats	
Audio Source Signal	**Audio Output Connector Type**
16 Analog Stereo PCM Inputs	16 stereo outputs with RCA jack connectors, left and right
S/PDIF Inputs: 16 Digital Coax or 12 TosLink ▪ Select between Coax or TosLink (first 12 inputs) ▪ Individually selectable by-pass mode for each digital input	S/PDIF outputs: Four digital coax outputs RCA jack connectors; Coax output level: 500 mV nominal into 75 ohms
Auto-Conversion	Converts *Stereo Analog Audio* to two-channel PCM S/PDIF (Coax only) or converts *Digital S/PDIF Audio* (Coax or TosLink) to Stereo Analog audio.
Enclosure	
Metal enclosure with Savant's Design Signature, black	

Rear Panel Capabilities and Connectors

The next figure shows the rear panel of an SSA-3220. The numbered callouts on the figure are explained in the next table.



Number	Item	Description
1	Digital Audio In (16)	Receives stereo PCM signal from S/PDIF Inputs: 16 Coax digital audio or 12 Digital TosLink connections that are selectable for a total of 16 digital audio inputs
2	Audio In (16)	16 analog audio inputs (16 right and 16 left RCA jacks)
3	Digital Audio In (12)	Receives stereo PCM signal from S/PDIF Inputs: 12 TosLink digital audio or 16 Digital Coax connections that are selectable for a total of 16 digital audio inputs
4	LAN	RJ-45 Ethernet 10/100 base-T, auto-negotiating port with Link/Activity LEDs
5	Vents	Provide Cooling
6	Audio Out (16)	16 analog Stereo line-level audio outputs (16 Right and 16 Left RCA jacks)
7	Digital Audio Out (4)	S/PDIF Out: 4 Digital Coax Audio Outputs (RCA Jacks)
8	Link/Activity LED (1)	**Green** indicates an Ethernet link has been established. **Green flashing** indicates Ethernet activity. **Off** indicates an Ethernet link has not been established.
9	Speed LED (1)	**Green** indicates an Ethernet speed of 100 Mb.
10	Debug / RS232 (1)	RJ45 female-connector port Typically used for debug or optionally use this serial port for control from a Savant controller or third party control box (future release).
11	Fuse (1)	100-240V, 2.5A—Fast acting fuse. This is field-replaceable.
12	I/O (1)	On/Off switch **I** is used to power the controller to the On state. **O** is used to power the controller off.
13	Input Power (1)	100-240V AC, 50/60 Hz, 1.5 Amp

Included Items

The individual components contained in the installation kit for the SSA-3220 are outlined in the next table.

Description	Quantity
2U Rack Mounting Brackets	2
Phillips Screws for Brackets (M3 x 8MM Flat — 039-0017-xx)	4
Power cord C13, (6 feet—N. America 064-0079-xx) or appropriate international cord	1
Quick Reference Guide	1

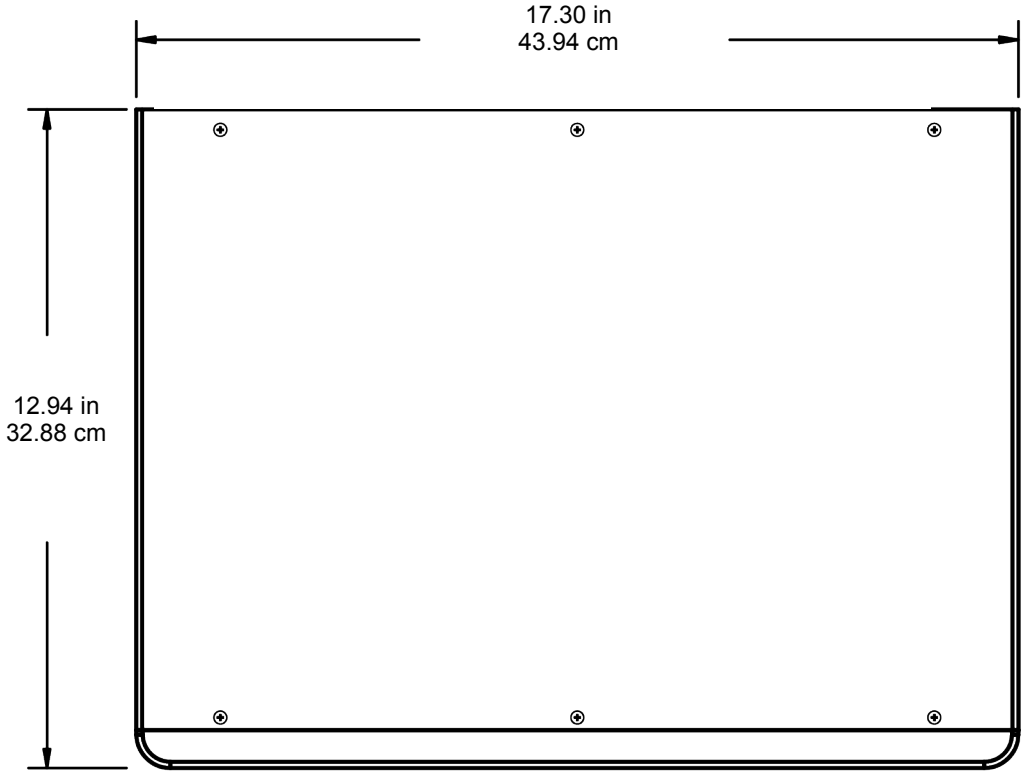
Optional Accessories

The optional accessories available for use with the SSA-3220 are outlined in the next table.

Description	Model Number
Savant Host	HST-XXXX or SVR-XXXX
8 x 8 HDMI™ over HDBaseT Matrix Switcher	SLN-88BT
16-Channel Power Amplifier	AMP-2000, AMP-2000I
8-Channel Power Amplifier	AMP-8125
SmartMedia Server (2-Source)	SMS-002A
SmartMedia Server (5-Source)	SMS-005A
Desktop Media Dock	DDL-P200
Savant Select Remote	SSR-1000
4-Inch In-Wall Speaker	SPK-40IW-00
6.5-Inch In-Wall Speaker Pair	SPK-60IW-00
6.5-Inch In-Wall Speaker	SPK-65IW-00
8-Inch In-Wall Speaker Pair	SPK-80IW-00
7-Inch DVC In-Ceiling Speaker	SPK-72IC-00
7-Inch In-Ceiling Speaker	SPK-75IC-00
7-Inch Audiophile In-Ceiling Speaker	SPK-78IC-00
In-Wall Subwoofer Speaker	SPK-USUB-00
Speaker Bracket for SPK-40IW Pair	SPK-BR40-00
In-Wall Speaker Bracket	SPK-BR60-00
Speaker Bracket for Pair	SPK-BR68-00
In-Wall Sub Bracket	SPK-BR70-00
In-Ceiling Speaker Back Box	SPK-MFLR-00
PC Series 70 Volt Transformer (For SPK-72IC, SPK-75IC)	SPK-PC70V-00

Dimensions

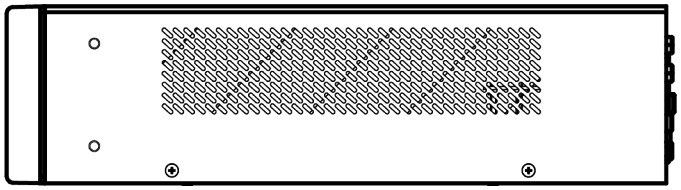
The next figures show the dimensions of the SSA-3220.



Top View (above)

Front View (below)

12.94 in
32.88 cm



Side View (above)

Copyright © 2013 Savant Systems, LLC. SAVANT and RacePoint Blueprint are trademarks of Savant Systems, LLC.
All brand names, product names and trademarks are the property of their respective owners.
Savant Systems, LLC reserves the right to change product specifications without notice.

45 Perseverance Way, Hyannis, MA 02601 ▼ P: 508-683-2500 ▼ F: 508-683-2600 ▼ www.SavantSystems.com

Savant Confidential and Proprietary